

WM DOCKET CONTROL  
CENTER

Announcement

Distribution:

INTERLABORATORY RADON-DAUGHTER COMPARISON WORKSHOPS

(Return to WM, 623-S3)

'85 JUL 29 AM 10:05

Technical Measurements Center  
Grand Junction, ColoradoPurpose and Scope

The Technical Measurements Center which is operated for the Department of Energy (DOE) Division of Remedial Action Projects by Bendix Field Engineering Corporation is initiating a series of radon-daughter comparison workshops. The objective of the workshops is to compare the radon-daughter measurements made simultaneously by various laboratories in the same controlled radon-daughter atmosphere. The methods to be used by the participants should be of the short term (i.e., 5 min.) grab type against which the other radon-daughter measurements at each laboratory would normally be referenced. Participation at each workshop is limited by the number of chamber sampling ports to approximately 12 laboratories. The laboratories invited to the first workshop are those considered as primary laboratories because other laboratories frequently obtain radon and radon-daughter calibration assistance from them. Similar workshops involving primarily operational participants are to be held later.

First Workshop Format

The actual radon daughter comparison measurements of the first workshop will be made at the DOE Grand Junction Projects Office (GJPO) radon-daughter chamber on September 11 and 12. All 12 participants will simultaneously sample the same controlled radon-daughter atmosphere maintained in the chamber. Each participant will use his own sampling and counting equipment so that the results derived will represent true comparisons of all aspects of the measurement.

The chamber conditions that will be maintained for each measurement are:

Temperature = 22°C  
Relative Humidity = 40%  
Condensation-Nuclei Concentration =  $2 \times 10^4/\text{cm}^3$   
Radon-Daughter Equilibrium = 0.5  
Atmospheric Pressure = approximately 635 mm Hg.

At least one measurement will be made at each of three radon concentrations: 60, 30, and 15 pCi/l. There may be several measurements at each concentration depending upon time constraints and participants' inclinations.

Participants wishing to compare air volume measurements or longer term integrated radon-daughter measurements (e.g., RPISU) are invited to either arrive earlier on September 9 or 10 or to stay an extra day on September 13. A comparison of alpha counting standards will also be made.

Participants who are also involved in radon-flux work are invited to compare radon-flux measurements on the TMC thin-layer radon-flux model during the week of the workshop.

The format for succeeding workshops is expected to be similar to the first workshop with minor changes to accomodate individual requirements.

#### Physical Constraints

Each participant will have available a separate sampling port. Each port will be fitted with a one-hole rubber stopper and an equal length of 1/4" tubing. The end of the 1/4" tubing inside the chamber will be terminated with a 1/8" NPT male fitting to which the participant will attach his own filter head. The end of the 1/4" tubing outside the chamber will be terminated with a barbed hose fitting to which the participant will attach a hose from his air sampling apparatus. Each sampling port has an inside diameter of 3-1/4" and will accept filter heads up to this outside diameter. Any participant having different requirements should discuss them with the TMC at least two weeks ahead of time so that they may be accommodated.

#### General Information

Each radon-daughter comparison workshop will be held at the DOE Grand Junction Projects Office in Grand Junction, Colorado and last a total of one week. The simultaneous sampling exercise will begin at 9:30 a.m. on Wednesday of that week and participants should plan to arrive by 8:30 a.m. to allow time to set up. Participants will be asked to make their own travel and lodging arrangements.

Anyone wishing to learn of the results of the first workshop and the relevance of these exercises to his own measurement program is urged to contact one of the participants in the first workshop listed below.

To request participation in these workshops and obtain additional information, please call Hal Langner, Bendix Field Engineering, 303/242-8621 (FTS 322-9422).

#### First Workshop Invitees

J. Bigu  
Energy, Mines and Resources Canada  
Elliot Lake Laboratory

Robert Drouillard  
U.S. Department of Interior  
Bureau of Mines

Andreas George  
Environmental Measurements Laboratory  
U.S. Department of Energy

Gert Keller  
Universitat Des Saarlandes, FRG

Wayne Bliss  
U.S. Environmental Protection Agency  
Office of Radiation Programs

Rolf Falk  
National Institute of Radiation  
Protection, Sweden

Richard Hagee  
Monsanto Research Corporation  
Mound Facility

Hal Langner  
Bendix Field Engineering Corporation

Steven Rudnick  
Harvard School of Public Health

Richard Sextro  
Lawrence Berkeley Laboratory  
Energy and Environmental Division

Edwin L. Sensintaffar  
U.S. Environmental Protection Agency

Richard Toohey  
Argonne National Laboratory

# Announcement Distribution List

## INTERLABORATORY RADON-DAUGHTER COMPARISON WORKSHOPS

Technical Measurements Center  
Grand Junction, Colorado

<u>Name</u>	<u>Affiliation</u>
Ami, Donald	Hopi Tribe
Anderson, Larry	Utah Division of Health
Bailey, Edgar	Texas Department of Health
Baker, Kenneth	Roy F. Weston, Inc.
Ball, Larry	U.S. Department of Energy
Baublitz, John	U.S. Department of Energy
Beardon, Bob	Jacobs Engineering Group, Inc.
Beers, Richard J.	U.S. Department of Energy
Begay, Tom	The Navajo Nation Division of Resources
Berger, James	Oak Ridge Associated Universities
Berven, Barry	Oak Ridge National Laboratory
Brazley, Tony	U.S. Department of Energy
Birch, Randy	U.S. Nuclear Regulatory Commission
Church, Burce	U.S. Department of Energy
Crew, Merle	U.S. Department of Energy
Crossman, C. Kelley	New Mexico Environmental Improvement Div.
DeLaney, Edward	U.S. Department of Energy
Denham, Dale H.	Battelle, Pacific Northwest Laboratory
Donovan, Thomas	Tennessee Valley Authority
Eirich, Alexander	UNC Nuclear Industries
Eisenhower, Elmer	National Bureau of Standards
Emilia, David	Bendix Field Engineering Corporation
Eng, Janette	New Jersey Department of Environmental Prot.
Franz, Bud	Colorado Department of Health
Geiger, Eric	Eberline Instrument Corporation
Gerusky, Thomas	Pennsylvania Dept. of Environmental Resources
Glenn, R.D.	Bechtel National Inc.
*Gnugnoli, Giorgio	U.S. Nuclear Regulatory Commission
Groelsema, Donald	U.S. Department of Energy
Hagar, Bill	South Dakota Department of Water and Natural Resources
Hargas, Ken	New Mexico Environmental Improvement Division
Haywood, Fred	Eberline Instrument Corp.
Hazle, Al	Colorado Department of Health
Hengerson, Roy C.	Missouri Department of Natural Resources
Hopkins, Russ	Morrison-Knudsen, Co., Inc.
Howard, Roland	Chem-Nuclear Systems Inc.
Jackson, Pete	Battelle, Pacific Northwest Laboratory
Jierree, Candice C.	U.S. Nuclear Regulatory Commission
Johnson, Nels	Eberline Instrument Corp.
Keller, Lea	U.S. Department of Energy
Kelly, Robert F.	New York State Department of Labor

NameAffiliation

Kuhaida, A.J.	Bechtel National, Inc.
Lichtman, Stan	U.S. Environmental Protection Agency
Little, Craig	Oak Ridge National Laboratory
Lloyd, Larry	Montana Department of Health and Environmental Services
Meyer, H. Robert	Chem-Nuclear Systems, Inc.
Miera, Felix	Oregon Department of Energy
Miller, Clarence	U.S. Department of Energy
Mount, Dana	North Dakota Department of Health
Murri, Richard	Bendix Field Engineering Corporation
Nelson, Roger	Roy F. Weston, Inc.
Nemec, Joseph	Bechtel National, Inc.
Nichols, Clayton R.	U.S. Department of Energy
Phoenix, Donald	Roy F. Weston, Inc.
Potter, Bob	UNC Nuclear Industries
Rimawi, Karim	New York State Department of Health
Schaffer, Roger	Wyoming Dept. of Environmental Quality
Selby, Jack	Battelle, Pacific Northwest Laboratories
Simpson, Sam	New Mexico Environmental Improvement Division
Tappan, Tell	ARIX Corporation
Tardiff, Mark	Bechtel National Laboratories
Themelis, John	U.S. Department of Energy
Thornburg, Chuck	Colorado Department of Health
Welty, Carl J.	U.S. Department of Energy
Williams, Roger	Jacobs Engineering Group, Inc.
Wing, Jerry	U.S. Department of Energy
Wynveen, Robert	Argonne National Laboratory
Yusko, James	Pennsylvania Bureau of Radiation Protection